

REMARKS

Claims 1-34 are now pending in the above-captioned application.

Applicant would like to thank the Examiner for the courtesy shown to applicant during the interview of January 31, 2005. During that interview, no agreement was reached regarding the claims or the Prior Art. However, the interview was useful as it more clearly set forth the Examiner's position with regard to the references cited.

1. §131 Affidavit

As discussed during the Interview, the GARRETT reference has an effective date less than a year prior to applicant's original filing date of September 12, 2000. Thus, it is permissible to "swear behind" the GARRETT reference, if applicant's date of conception pre-dates GARRETT.

As discussed during the interview, applicants believe that it is possible that the "arborist" mentioned in the GARRETT article may in fact be one of the inventors. Applicant's activities with regard to the present invention predate GARRETT.

As such, with the submission of the enclosed Affidavit, GARRETT is no longer relevant as a reference in the present application.

Claims 27-34 were rejected in a §103 rejection including GARRETT. As the Examiner has admitted that these claims include limitations not taught by Miller and Dale, either an additional reference should be applied to the claims or the rejection withdrawn.

2. GARRETT is an indicia of Non-Obviousness

The GARRETT reference should not be discarded just yet, however. GARRETT clearly teaches that applicant's invention, at the time the invention was made was non-obvious to "one of ordinary skill in the art."

In particular, if one reads the RESPONSE to the inquiry of "D.G., North Arlington", it appears that the proposed treatment of a Post Oak tree is not favored. The relevant part of GARRETT reads as follows:

Q: Our house was built in 1984 and has two old post oaks 4 to 5 feet in diameter on the edge of the property. Both trees were disturbed during construction, when several feet of soil was back-filled over their root systems. They are both showing major signs of distress

An arborist recommended I uncover the trunks down to the root flares and treat them with powered root hormone in holes drilled in the soil under the branch canopy. Do you think this would help? D.G. - North Arlington.

A: Sounds like a good plan, but I prefer the sick tree treatment that I recommend (send a request for a copy to the address below). **Post oaks are very fragile and cannot handle much disturbance or stress.** (emphasis added).

Note first that GARRETT does not teach the combination of fertilizer and root hormone set forth in the present invention. Thus, the reference does not teach ALL of the features of the claimed invention. But, as the reference has been sworn behind, that issue is moot.

More importantly is that the HOUSE & GARDEN columnist for the DALLAS MORNING NEWS, certainly one of "ordinary skill in the art"

appears to dismiss the suggestion of drilling into the roots of the tree, as Post Oaks are ``very fragile and cannot handle much disturbance or stress''. GARRETT proscribes instead his own technique for handling sick trees.

This technique can be found on his website (http://www.dirtdoctor.com/view_question.php?id=130). Note that he does not recommend using fertilizer and/or growth hormones, but rather recommends aeration and the application of ``organic amendments'' (lava sand).

Thus, it would appear that at the time of the invention, the wisdom of those of ordinary skill in the art was not to disturb the roots of the tree, as the tree (Post Oaks in particular) was too fragile and easily disturbed.

Applicant's have learned through invention and testing that the opposite is true. Applying root hormone and fertilizer into the roots of the tree will save the tree. Less aggressive treatments will result only in the tree slowly dying, as the root structure fails to recover.

3. Remaining §103 Rejections

The §131 affidavit does not remove the primary references of Miller and Dale, applied to claims 1, 3-7, 18, 20-22, and 24-26. The Miller/Dale combination was applied further in view of ROOTONE, to claims 2, 8-17, 18 and 23.

In order to be complete, an obviousness-type rejection must contain two elements:

1. The references, as combined, must show all the features of the claimed invention (all elements rule); and
2. A proper motivation to combine the references must be provided. *Graham v. John Deere Co.* 383 U.S. 1 (1966)

In this instance, neither element is present.

As discussed during the Examiner interview, devices for injecting fertilizer into the root area of a tree using a spike driven into the ground, feeding water soluble fertilizer through a garden hose are known in the art. An example of such a device can be found at <http://www.rittenhouse.ca/asp/Product.asp?PG=917>, although other such devices are known to exist. Thus, applying fertilizer to the roots of trees is known in the art. However, as noted above, Garrett teaches away from using fertilizer on distressed trees.

Miller teaches a method of treating a specific problem, iron chlorosis, and does indeed mention mature trees on Col. 9, line 66, as noted in the Interview. However, whether iron chlorosis meets the definition of "distressed" tree is unclear. Applicant has clearly defined the definition of a tree in distress in claim 1, as characterized by a ratio reduction between root structure to canopy volume such that the root structure is insufficient to support the canopy volume. Miller does not teach such a definition.

However, even if we assume iron chlorosis meets the criteria of a distressed tree, it is clear that Miller does not teach applying a mixture of fertilizer and root hormone. More importantly, Miller does not teach applying this mixture in a *subterranean* fashion, directly to the roots. Rather, he applies his mixture as a "drench" (Col. 9, line 63) "near" the root zone. In the present invention, as claimed, the mixture is applied directly to the roots.

As noted, Miller does not teach applicant's combination of root hormone and fertilizer. Dale is applied to Miller to show the use of a root hormone and fertilizer. Dale does indeed mention the use of root hormone and fertilizer in combination. However, Dale applies this to the root ball of a transplanted tree.

The claims have been amended to recite that the root system of the distressed tree is in the earth. This limitation distinguishes the present invention from Dale, as Dale is directed toward transplanting of trees and shrubs.

Thus, neither Dale or Miller, taken alone or in combination, teach or suggest the concept of applying directly underground the mixture of the present invention, so as to revive a distressed tree.

Moreover, the motivation to combine Dale and Miller directly contradicts the teachings of Garrett. Garrett clearly states in his "Sick Tree" brochure that applying a fertilizer to a distressed tree is a bad idea. Thus, the motivation stated in the Office Action that it would be "obvious to one of ordinary skill in the art at the time of the invention to modify the method of Miller by using the mixture of Dale so as to increase plant growth" is little more than speculation. The actual motivation, as stated by the "Dirt Doctor" Garrett, is to do just the opposite with a distressed tree - namely avoid using a fertilizer.

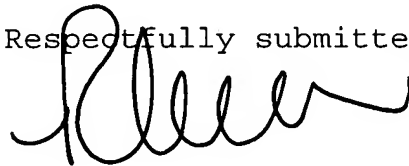
The addition of the ROOTONE reference to claims 2, 8-17, and 23 does not correct the deficiencies of the underlying rejection. ROOTONE merely teaches the existence of a root hormone, without teaching or suggesting the method of the present invention.

CONCLUSION

Applicant has sworn behind the Garrett reference, and thus it is no longer applicable to claims 27-34. Moreover, Garrett clearly contradicts the motivation stated by the Examiner to combine Miller and Dale. Miller and Dale do not teach all of the elements of the claimed invention. Thus, all of claims 1-34 are now in condition for allowance.

An early Notice of Allowance is respectfully requested.

Respectfully submitted,

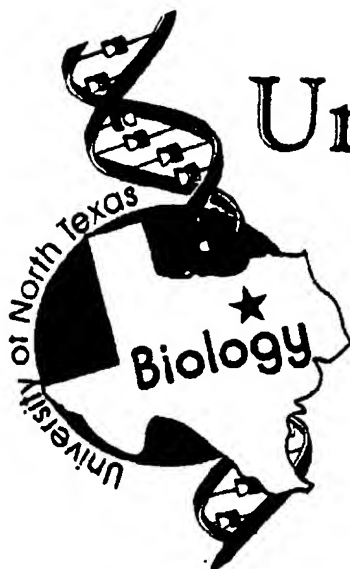


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